

REMARKS

Applicants' remarks on pages 8-14 of the Amendment and Request for Reconsideration filed January 13, 2006 are incorporated herein by reference in their entirety. Reconsideration of the claimed invention is respectfully requested in light of the above-shown amendments and the following additional reasons.

Rejection under 35 U.S.C. § 102(b)/103(a)

The rejection of Claims 5-17 under 35 U.S.C. § 102(b), or in the alternative under 35 U.S.C. § 103(a), over the disclosure of U.S. Patent Application No. 2002/0098407 (US '407), as evidenced by Kerr et al. ("New Polyelectrolyte Materials for High Temperature Fuel Cells") is traversed and obviated by amendment.

Claims 5 and 9 have been amended to recite a method for manufacturing a membrane electrode assembly for a solid polymer type fuel cell having a porous gas diffusion layer that comprises carbon cloth or carbon paper soaked in a dispersion comprising electrically conductive particles and water repellant particles.

In particular, as suggested by the Examiner in present Final Office Action at page 2, paragraph 5, the claims have been amended to remove the language "dispersed throughout the layer." The claims have also been amended to recite that the carbon cloth or carbon paper is "soaked" in a dispersion, which is supported by and commensurate with present specification at page 5, lines 1-10. Applicants submit that the added language sufficiently clarifies that the electrically conductive particles and water repellant particles are present throughout the layer. (See also THE AMERICAN HERITAGE COLLEGE DICTIONARY (2002), page 1313, which generally defines the verb "soak" as, *inter alia*, "thoroughly wet or saturated by"). (Emphasis added). A copy of the dictionary reference is enclosed herewith for the Examiner's convenience.

In contrast, the US '407 reference does not describe a process that includes the soaking (i.e., thorough saturation) of any particles in the carbon layer whatsoever. Therefore, the reference does not anticipate the claims. Moreover, the reference implies that the gas diffusion properties are reduced if the electrically conductive particles and water repellant particles are present throughout the carbon layer. (See MPEP § 2141.02, explaining that “prior art must be considered in its entirety, including disclosures that teach away from the claims”; and MPEP § 2143, explaining that “proposed modifications cannot render the prior art unsatisfactory for its intended purpose”). In particular, the reference recites at paragraphs [0022] and [0023]:

with respect to the carbon layer made of a fluororesin and carbon black, to be formed on the porous carbon substrate, its components preferably infiltrate into pore portions of the porous carbon substrate to some extent . . .

[however] . . . if the components of the above carbon layer infiltrate in a depth exceeding 50 μm from the surface of the porous carbon substrate in a thickness direction, since the carbon layer has poor gas diffusion properties, there is fear that the gas diffusion properties of the porous carbon substrate in a plane direction may significantly decrease. In view of the gas diffusion properties, the depth of the infiltration portions of the components of the carbon layer is preferably shallow regardless of the thickness of the porous carbon substrate . . .

(Emphasis added).

In light of the above-disclosure of the reference, there is clearly no intention to include the presence of conductive particles and water repellant particles throughout the carbon layer. Further, there would be no desirability to modify the reference in the presently claimed manner, since such a modification would render the layer unsatisfactory for its intended purpose. Therefore, the present claims are not obvious in view of the reference.

Applicants note that the Examiner asserts in the present Final Office Action at page 7, lines 4-7, that Applicants' previous argument that “Applicants do not impregnate the intermediate lamination layer body 1 with a solution containing the solvent-soluble fluorine-

containing polymer having no ion exchange group immediately before the heat treatment of the intermediate lamination body 1” is not commensurate in scope with the claims. However, Applicants point out that neither the present claims nor the present specification recite or indicate whatsoever the above-mentioned impregnation. Therefore, Applicants’ argument is entirely commensurate in scope with the claimed invention, which should be read in light of the disclosure of the present specification.

Accordingly, withdrawal of the rejection is requested.

Rejection under 35 U.S.C. § 112, First and Second Paragraphs

The rejection of Claims 5-17 under 35 U.S.C. § 112, first and second paragraphs is traversed and obviated by amendment.

As shown and discussed above, the claims 5 and 9 have been amended to remove the phrase “dispersed throughout the layer.” The claims have also been amended to recite that the carbon cloth or carbon paper is “soaked” in a dispersion, which is supported by and commensurate with present specification at page 5, lines 1-10.

Regarding claim 14, the claim has been amended to remove the phrase “at least about” to make the phrase more commensurate in scope with the disclosure. However, the recitation of “33 wt. %” has not been removed, since the wt. % can be calculated from the disclosure at page 4, line 33 through page 5, line 4. In particular, the definiteness requirement of 35 U.S.C. § 112, second paragraph “is satisfied when the relevant values [of a component recited in a claim] can be ‘calculated or measured.’” (See generally *Marley Mouldings Ltd. v. Mikron Industries, Inc.*, 417 F.3d 1356, 75 USPQ2d 1954 (Fed. Cir. 2005) (reversing a district court for holding that all of the claims of a patent were invalid for indefiniteness because the means to calculate a percent volume were not specified in the patent)).

Application No. 10/668,159
Reply to Office Action of March 30, 2006

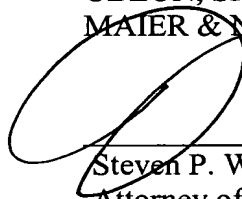
Accordingly, withdrawal of the rejections is requested.

Applicant submits that the application is now in condition for allowance. Early notification of such allowance is earnestly solicited.

Should the Examiner deem that any further action is necessary to place this application in even better form for allowance, the Examiner is encouraged to contact Applicant's undersigned representative at the below listed telephone number.

Respectfully submitted,

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The American Heritage® College Dictionary

FOURTH EDITION

NOT AVAILABLE



Houghton Mifflin Company
Boston • New York



snowshoe

BEST AVAILABLE COPY

a	pat	oi	boy
ā	pay	ou	out
ā	care	oo	took
ā	father	ōō	boot
ē	be	ū	cut
ē	be	ūr	urge
i	pit	th	thin
i	pie	th	this
ir	pier	hw	which
ō	pot	zh	vision
ō	toe	ā	about,
ō	paw	item	

Stress marks:

/ (primary);

' (secondary); as in

lexicon (lĕk'si-kŏn')

one and mounded on top of NW Wales rising to a small

mass or bank of snow piled up

Any of several bulbous flowers, having solitary nodding upspring.

all of snow. 2. The amount of snow or in a specified amount of time made of slats or twigs for drifting onto walks or roofs.

large expanse of snow.

A single flake of snow. 2. A small, often decorated box with a lid, used for carrying snuff.

ocean herbs of the genus *Primula*, having solitary nodding upspring. 3. See snow-blossom.

reeds in Arctic regions, having small white flowers.

to deceive, overlook, or ignore.

line mammal (*Panthera pardus*) having long thick white fur.

ritual boundary of a region, especially covered, indicating the extent of snow cover.

A human figure made of snowballs on top of a snowdrift.

1. The runoff from a mountain, such runoff occurs.

bell' (-mā-) n. A small, tanklike treads, riding on snow.

white ice particle that falls upon hitting a surface.

apophytic plant (family) in North America having

n. 1. A plowlike device for roads and railroad tracks, which the tips of the

progress. 2. *intr.v.* plowed and snowplow in skiing.

n. An oblong or rectangular strip that is attached to a shoe.

n. A child's zippered shoe.

medium-sized hare (*Lepus timidus*) having large, heavily

m') n. A storm with heavy snow.

n. A child's zippered shoe.

a deep tread or stud on shoe surfaces.

1. *adj.* White.

er, -i-est 1a. Abundant in snow. 2. Resembling snow.

lium-sized egret (*Hydrochloa leucorhynchos*) having snow-white

diurnal owl (*Nyctale noctula*) having snow-white

bbled, snub-bing, snubbing; slight. 2. To dismiss or slight.

of. 3. *Nautical A.* To snuff out, snuffing out) by turning a

ure (a vessel, for example, a cigarette, for example.

or affront. 2. *Nautical A.* In checking, as of a rope or running out. 3. *adj.* Unusually short: a snub nose. [ME *snubben*, to rebuke.] —snubber n.

snosed (snŭb'nozd') *adj.* 1. Having a short turned-up nose. 2. Having a very short barrel: a snub-nosed pistol.

snuff (snŭf) *v.* *Usage Problem* A past tense and a past participle. See *Usage Note* at *sneak*.

snuff (snŭf) *v.* snuffed, snuffing, snuffs —*tr.* 1. To inhale through the nose; sniff. 2. To sense or examine by smelling; sniff. —*intr.* To sniff; inhale. 3. The act of snuffing or the product produced by it. [ME *snuffen*, to snuff a candle, sniffle, sniffle, snuff. See *SNUFF*.]

snuff (snŭf) *n.* The charred portion of a candlewick. 2. *tr.v.* snuffed, snuffing, snuffs 1. To extinguish: snuffed out the candle. 2. To put a sudden end to; destroy: lives snuffed out by war.

snuff (snŭf) *n.* 1a. A preparation of finely pulverized tobacco drawn up into the nostrils by inhaling. b. The quantity of tobacco that is snuffed at a single time; a pinch. 2. A powder, substance, such as a medicine, taken by sniffing. 3. *intr.v.* snuffed, snuffing, snuffs To use or sniff snuff. —*idiom:* up to the snuff Informal 1. Normal in health. 2. Up to standard; adequate. [Du. *snuf*, short for *snufftabak*: Du. *snuffen*, to sniff; see *tabak*, tobacco.]

snuff box (snŭf'bŏks') *n.* A small, often decorated box with a lid, used for carrying snuff.

snuff (snŭf) *n.* 1. One who uses snuff. 2. *snuff (snŭf) n.* 1a. A candlesnuffer. b. One who snuffs candles. 2. snuffers An instrument resembling shears, used for snuffing the snuff from or extinguishing candles.

snuff film *n.* Slang A movie in a purported genre of explicit pornography culminating in the actual violent death of a participant.

snuff (snŭf) *v.* -fled, -fing, -fles —*intr.* 1. To breathe noisily through a blocked nose. 2. To sniff. 3. To talk or sing noisily. —*tr.* To utter in a snuffling tone. 4. *n.* 1. The act of snuffing or the sound produced by it. 2. snuffles The sniffles.

snuff (snŭf) *v.* Du. *snuffelen*, to sniff about, prob. freq. of *snufflen*, to sniff. [MDu. *snufflen*.] —snuffler *n.* —snuffly *adj.*

snug (snŭg) *adj.* snugger, snugger, snugger 1. Comfortably sheltered. 2. Small but well arranged. 3a. Closely secured and compact. b. Close-fitting. c. *Nautical* Seaworthy. 4a. Freedom from financial worry. b. Safe; secure. 4b. *adj.* snug, snugger, snugs —*tr.* To make snug or secure.

snug (snŭg) *v.* To nestle; snuggle. —*phrasal verb:* snug down *Nautical* To (a vessel) to weather a storm, as by taking in sail. [Of *snug*, *snug*, *snugly* *adv.* —snugness *n.*

snug (snŭg) *n.* Chiefly British A very small private room in a pub. [Of *snug*, *snug*, *snugly* *adv.* —snugness *n.*

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